

Features

- AEC-Q100 with extended temperature range (-55°C to 125°C)
- Frequencies between 1 MHz and 110 MHz accurate to 6 decimal places
- Supply voltage of 1.8V or 2.25V to 3.63V
- Excellent total frequency stability as low as ±20 ppm
- Industry best G-sensitivity of 0.1 PPB/G
- Low power consumption of 3.8 mA typical at 1.8V
- LVCMOS/LVTTL compatible output
- Industry-standard packages: 2.0 x 1.6, 2.5 x 2.0, 3.2 x 2.5, 5.0 x 3.2, 7.0 x 5.0 mm x mm
- RoHS and REACH compliant, Pb-free, Halogen-free and Antimony-free

Applications

- Automotive, extreme temperature and other high-rel electronics
- Infotainment systems, collision detection devices, and in-vehicle networking
- Powertrain control



Electrical Characteristics

All Min and Max limits are specified over temperature and rated operating voltage with 15 pF output load unless otherwise stated. Typical values are at 25°C and nominal supply voltage.

Table 1. Electrical Characteristics

Frequency Range f 1 10 MHz Refer to Table 13 and Table 14 for a list supported frequencies Frequency Stability Frequency Stability Frequency Stability F_{stab} -20 $ +25$ ppm Inclusive of Initial tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, rated power supply voltage and load (15 pF ± 10%). Frequency Stability F_{-50} $ +30$ ppm Inclusive of Initial tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, rated power supply voltage and load (15 pF ± 10%). Generating Temperature F_{-50} $ +30$ ppm Operating Temperature Range (ambient) T_{-40} $ +455$ $^{\circ}$ C Industrial, AEC-Q100 Grade 3 Supply Voltage -40 $ +125$ $^{\circ}$ C Industrial, AEC-Q100 Grade 3 Supply Voltage Vdd 1.52 $ 4.105$ $^{\circ}$ C Extended Industrial, AEC-Q100 Grade 3 Current Consumption 1.62 1.8 1.98	Parameters	Symbol	Min.	Тур.	Max.	Unit	Condition	
Output Frequency Range f 1 - 110 MHz Refer to Table 13 and Table 14 for a list supported frequencies Frequency Stability Frequency Stability F_stab -20 - +20 ppm Inclusive of Initial tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, rated power supply voltage and load (15 pF ± 10%). Frequency Stability F_stab - +20 ppm variations over operating temperature, rated power supply voltage and load (15 pF ± 10%). Frequency Stability - +20 - +20 ppm 0 - +400 - +400 ppm variations over operating temperature, rated power supply 0 - +105 °C Industrial, AEC-Q100 Grade3 1 7 - +125 °C Extended Industrial, AEC-Q100 Grade1 1 6 - +125 °C Extended Temperature, AEC-Q100 1 1 8 1.8 1.98 V All voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V 1.62 1.8	Frequency Range							
Frequency Stability Figuency Stability <th colsp<="" th=""><th>Output Frequency Range</th><th>f</th><th>1</th><th>-</th><th>110</th><th>MHz</th><th>Refer to Table 13 and Table 14 for a list supported frequencies</th></th>	<th>Output Frequency Range</th> <th>f</th> <th>1</th> <th>-</th> <th>110</th> <th>MHz</th> <th>Refer to Table 13 and Table 14 for a list supported frequencies</th>	Output Frequency Range	f	1	-	110	MHz	Refer to Table 13 and Table 14 for a list supported frequencies
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Frequency Stability and Aging							
$ \begin{array}{ c c c c c c c } \hline \hline -25 & - & +25 & ppm \\ \hline -30 & - & +30 & ppm \\ \hline -30 & - & +30 & ppm \\ \hline -50 & - & +50 & ppm \\ \hline \hline -50 & - & +50 & ppm \\ \hline \hline -50 & - & +50 & ppm \\ \hline \hline -50 & - & +50 & ppm \\ \hline \hline -50 & - & +50 & ppm \\ \hline \hline -50 & - & +50 & ppm \\ \hline \hline -50 & - & +85 & ^{\circ}C & Industrial, AEC-Q100 Grade 3 \\ \hline -40 & - & +105 & ^{\circ}C & Extended Industrial, AEC-Q100 Grade 2 \\ \hline -40 & - & +125 & ^{\circ}C & Automotive, AEC-Q100 Grade 1 \\ \hline -40 & - & +125 & ^{\circ}C & Automotive, AEC-Q100 Grade 1 \\ \hline -55 & - & +125 & ^{\circ}C & Automotive, AEC-Q100 Grade 1 \\ \hline -55 & - & +125 & ^{\circ}C & Extended Temperature, AEC-Q100 \\ \hline \hline \hline \hline \\ \hline$	Frequency Stability	F_stab	-20	-	+20	ppm	Inclusive of Initial tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, rated power supply voltage and load (15 pF \pm 10%).	
$ \begin{array}{ c c c c c c c } \hline \hline \end{tabular} \end{tabular} \\ \hline \hline \end{tabular} \\ \hline \hline \end{tabular} \\ \hline \hline \end{tabular} \\ \hline \hline \end{tabular} \\ \hline $			-25	-	+25	ppm		
		-	-30	-	+30	ppm		
$\begin{tabular}{ c c c c c } \hline Operating Temperature Range \\ \hline Operating Temperature Range (ambient) \\ \hline T_use \\ Range (ambient) \\ \hline T_use \\ \hline -40 \\ -40 \\ -40 \\ -40 \\ -40 \\ -40 \\ -40 \\ -40 \\ -40 \\ -40 \\ -55 \\ -4125 \\ -55 \\ -4125 \\ -56 \\ -4125 \\ -56 \\ -4125 \\ -56 \\ -4125 \\ -56 \\ -4125 \\ -56 \\ -4125 \\ -56 \\ -56 \\ -4125 \\ -56 \\ -56 \\ -4125 \\ -56 \\ -56 \\ -4125 \\ -56 \\ -56 \\ -4125 \\ -56 \\ -56 \\ -56 \\ -1125 \\ -56 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -56 \\ -1125 \\ -1125 \\ -56 \\ -1125 \\ -$			-50	-	+50	ppm		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Operating TemperatureRange							
Range (ambient) -40 $ +105$ $^{\circ}$ C Extended Industrial, AEC-Q100 Grade 2 -40 $ +125$ $^{\circ}$ C Automotive, AEC-Q100 Grade 1 -55 $ +125$ $^{\circ}$ C Extended Temperature, AEC-Q100 Supply Voltage Vdd 1.62 1.8 1.98 V All voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V Current Consumption Idd $ 3.63$ V All voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V Current Consumption Idd $ 4.0$ 4.8 mA No load condition, $f = 20$ MHz, Vdd = 2.25V to 3.63V Current Consumption Idd $ 4.0$ 4.8 mA No load condition, $f = 20$ MHz, Vdd = 2.25V to 3.63V Duty Cycle DC 45 $ 55$ $\%$ All Vdds Rise/Fail Time $ 1.5$ 3 ns $Vdd = 2.25V \cdot 3.63V, 20\% \cdot 80\%$ Output High Voltage VOH 90	Operating Temperature	T_use	-40	_	+85	°C	Industrial, AEC-Q100 Grade 3	
$\begin{tabular}{ c c c c c } \hline -40 & -& +125 & ^{\circ}C & Automotive, AEC-Q100 Grade 1 \\ \hline -55 & -& +125 & ^{\circ}C & Extended Temperature, AEC-Q100 \\ \hline -55 & -& +125 & ^{\circ}C & Extended Temperature, AEC-Q100 \\ \hline & & & & & & & & & & & & & & & & & &$	Range (ambient)		-40	-	+105	°C	Extended Industrial, AEC-Q100 Grade 2	
$\begin{tabular}{ c c c c c } \hline -55 & -$& +125$ & $^{\circ}$C$ Extended Temperature, AEC-Q100 \\ \hline -55 & -$& and Current Consumption \\ \hline Udd & 1.62 & 1.8 & 1.98 & V & $All voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V$ and 3.3V are supported. \\ \hline 2.25 & -$& 3.63 & V & $and 3.3V are supported. \\ \hline 2.25 & -$& 3.63 & V & $and 3.3V are supported. \\ \hline 2.25 & -$& 3.63 & V & $All voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V$ and 3.3V are supported. \\ \hline 2.25 & -$& 3.63 & V & $and 3.3V are supported. \\ \hline 2.25 & -$& 3.63 & V & $All voltages between 2.25V to 3.63V$ \\ \hline 2.25 & -$& 3.63 & V & $and 3.3V are supported. \\ \hline 2.25 & -$& 3.63 & V & $All voltage condition, f = 20 MHz, Vdd = 2.25V to 3.63V$ \\ \hline $-$& 3.8 & 4.5 & mA & $No load condition, f = 20 MHz, Vdd = 1.8V$ \\ \hline VOL & $VCMOS Output Characteristics$ \\ \hline VOH & $\frac{1}{-$}$ & $\frac{1}{-$}$ & $\frac{5}{5}$ & $\frac{9}{6}$ & $All Vdds$ \\ \hline $Rise/Fall Time$ & $\frac{1}{Tr, Tf}$ & $\frac{-$& 1.5 & 3 & ns & $Vdd = 2.25V \cdot 3.63V, 20\% - 80\%$ \\ \hline $Output High Voltage$ & VOH & $\frac{90\%}{-$-$ & $-$ & Vdd & $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ $IOH = -3$ mA (Vdd = 2.8V and Vdd = 2.5V)$ \\ $IOH = -2$ mA (Vdd = 1.8V)$ \\ \hline $IOH = -2$ mA (Vdd = 1.8V)$ \\ \hline $IOH = -2$ mA (Vdd = 2.8V and Vdd = 2.5V)$ \\ $IOH = -2$ mA (Vdd = 2.8V and Vdd = 2.5V)$ \\ \hline $IOH = -2$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 2.8V and Vdd = 2.5V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V or 3.3V)$ \\ \hline $IOH = -4$ mA (Vdd = 3.0V$			-40	-	+125	°C	Automotive, AEC-Q100 Grade 1	
Supply Voltage and Current ConsumptionSupply VoltageVdd1.621.81.98V and 3.3VAll voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V and 3.3V are supported.Current ConsumptionIdd-4.04.8mANo load condition, f = 20 MHz, Vdd = 2.25V to 3.63VCurrent ConsumptionIdd-3.84.5mANo load condition, f = 20 MHz, Vdd = 2.25V to 3.63VDuty CycleDC45-55%All VddsTry TfTr, Tf-1.53nsVdd = 2.25V - 3.63V, 20% - 80%Output High VoltageVOH90%VddIOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -3 mA (Vdd = 2.8V and Vdd = 2.5V)Output Low VoltageVOL10%VddIOH = -2 mA (Vdd = 1.8V)			-55	-	+125	°C	Extended Temperature, AEC-Q100	
Supply Voltage Vdd 1.62 1.8 1.98 V All voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V and 3.3V are supported. Current Consumption Idd - 3.63 V All voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V and 3.3V are supported. Current Consumption Idd - 4.0 4.8 mA No load condition, f = 20 MHz, Vdd = 2.25V to 3.63V Duty Cycle DC 45 - 55 % All Vdds Rise/Fall Time Tr, Tf - 1.5 3 ns Vdd = 2.25V - 3.63V, 20% - 80% Output High Voltage VOH 90% - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) (IOH = -3 mA (Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) (IOH = -2 mA (Vdd = 2.8V and V	Supply Voltage and Current Consumption							
Life2.25-3.63Vand 3.3V are supported.Current ConsumptionIdd-4.04.8mANo load condition, f = 20 MHz, Vdd = 2.25V to 3.63V-3.84.5mANo load condition, f = 20 MHz, Vdd = 1.8VLVCMOS Output CharacteristicsDuty CycleDC45-55%All VddsRise/Fall Time-1.53nsVdd = 2.25V - 3.63V, 20% - 80%Output High VoltageVOH90%VddIOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -3 mA (Vdd = 2.8V and Vdd = 2.5V)Output Low VoltageVOL10%VddIOL = 4 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 1.8V)	Supply Voltage	Vdd	1.62	1.8	1.98	V	All voltages between 2.25V and 3.63V including 2.5V, 2.8V, 3.0V	
Current Consumption Idd - 4.0 4.8 mA No load condition, f = 20 MHz, Vdd = 2.25V to 3.63V - 3.8 4.5 mA No load condition, f = 20 MHz, Vdd = 2.25V to 3.63V Duty Cycle DC 45 - 55 % All Vdds Rise/Fall Time - 1.5 3 ns Vdd = 2.25V - 3.63V, 20% - 80% Output High Voltage VOH 90% - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -3 mA (Vdd = 2.8V and Vdd = 2.5V) IOH = -2 mA (Vdd = 1.8V) Output Low Voltage VOL - - 10% IOL = 4 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 1.8V) Output Low Voltage VOL - - 10% IOL = 4 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V)	, 6		2.25	-	3.63	V	and 3.3V are supported.	
- 3.8 4.5 mA No load condition, f = 20 MHz, Vdd = 1.8V LVCMOS Output Characteristics Duty Cycle DC 45 - 55 % All Vdds Rise/Fall Time Tr, Tf - 1.5 3 ns Vdd = 2.25V - 3.63V, 20% - 80% Output High Voltage VOH 90% - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -3 mA (Vdd = 2.8V and Vdd = 2.5V) IOH = -2 mA (Vdd = 1.8V) Output Low Voltage VOL - - 10% IOL = 4 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 3.0V or 3.3V) Output Low Voltage VOL - - 10% IOL = 4 mA (Vdd = 3.0V or 3.3V)	Current Consumption	ldd	-	4.0	4.8	mA	No load condition, f = 20 MHz, Vdd = 2.25V to 3.63V	
LVCMOS Output Characteristics Duty Cycle DC 45 - 55 % All Vdds Rise/Fall Time Tr, Tf - 1.5 3 ns Vdd = 2.25V - 3.63V, 20% - 80% Output High Voltage VOH 90% - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) Output Low Voltage VOL - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) Output Low Voltage VOL - - 10% IOL = 4 mA (Vdd = 3.0V or 3.3V) Output Low Voltage VOL - - 10% Vdd IOL = 4 mA (Vdd = 3.0V or 3.3V) Output Low Voltage VOL - - 10% Vdd IOL = 4 mA (Vdd = 3.0V or 3.3V)			-	3.8	4.5	mA	No load condition, f = 20 MHz, Vdd = 1.8V	
Duty Cycle DC 45 - 55 % All Vdds Rise/Fall Time Tr, Tf - 1.5 3 ns Vdd = 2.25V - 3.63V, 20% - 80% Output High Voltage VOH 90% - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) Output Low Voltage VOL - - 10% IOL = 4 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) Output Low Voltage VOL - - 10% IOL = 4 mA (Vdd = 3.0V or 3.3V) IOL = 4 mA (Vdd = 2.8V and Vdd = 2.5V)	LVCMOS Output Characteristics							
Rise/Fall Time - 1.5 3 ns Vdd = 2.25V - 3.63V, 20% - 80% Output High Voltage VOH - 1.3 2.5 ns Vdd = 1.8V, 20% - 80% Output Low Voltage VOH 90% - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) Output Low Voltage VOL - - - Vdd IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) IOH = -2 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) Output Low Voltage VOL - - 10% Vdd IOL = 4 mA (Vdd = 2.8V and Vdd = 2.5V)	Duty Cycle	DC	45	-	55	%	All Vdds	
Output High Voltage VOH 90% - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -4 mA (Vdd = 2.8V and Vdd = 2.5V) IOH = -4 mA (Vdd = 2.8V and Vdd = 2.5V) IOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 1.8V) IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) IOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -2 mA (Vdd = 1.8V) IOL = 4 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 4 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 4 mA (Vdd = 2.8V a	Rise/Fall Time	Tr Tf	-	1.5	3	ns	Vdd = 2.25V - 3.63V, 20% - 80%	
Output High Voltage VOH 90% - - Vdd IOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -4 mA (Vdd = 2.8V and Vdd = 2.5V) IOH = -3 mA (Vdd = 2.8V and Vdd = 2.5V) IOH = -2 mA (Vdd = 1.8V) IOH = -2 mA (Vdd = 1.8V) IOH = -2 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 4 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 4 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 4 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 3 mA (Vdd = 2.8V and Vdd = 2.8		,	-	1.3	2.5	ns	Vdd = 1.8V, 20% - 80%	
Output Low Voltage VOL IOH = -2 mA (Vdd = 1.8V) - - 10% Vdd IOH = -2 mA (Vdd = 1.8V)	Output High Voltage	VOH	90%		_	Vdd	IOH = -4 mA (Vdd = 3.0V or 3.3V) IOH = -3 mA (Vdd = 2.8V and Vdd = 2.5V)	
Output Low Voltage VOL IOL = 4 mA (Vdd = 3.0V or 3.3V) - - 10% Vdd IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V)			3070			vuu	IOH = -2 mA (Vdd = 1.8V)	
- $ 10%$ Vdd $10L = 3 mA (Vdd = 2.8V and Vdd = 2.5V)$	Output Low Voltage	VOL			100/		IOL = 4 mA (Vdd = 3.0 V or 3.3 V)	
			-	-	10%	Vdd	IOL = 3 mA (Vdd = 2.8V and Vdd = 2.5V) IOL = 2 mA (Vdd = 1.8V)	
Input Characteristics								
Input High Voltage VIH 70% – – Vdd Pin 1, OE	Input High Voltage	VIH	70%	- 1	_	Vdd	Pin 1, OE	
Input Low Voltage VIL - - 30% Vdd Pin 1, OE	Input Low Voltage	VIL	-	-	30%	Vdd	Pin 1, OE	
Input Pull-up Impedence Z_in - 100 - kΩ Pin 1, OE logic high or logic low	Input Pull-up Impedence	Z_in	-	100	-	kΩ	Pin 1, OE logic high or logic low	
Startup and Resume Timing								
Startup Time T_start - 10 ms Measured from the time Vdd reaches its rated minimum value	Startup Time	T_start	-	-	10	ms	Measured from the time Vdd reaches its rated minimum value	
Enable/Disable Time T_oe - 130 ns f = 110 MHz. For other frequencies, T_oe = 100 ns + 3 * cycles	Enable/Disable Time	T_oe	-	-	130	ns	f = 110 MHz. For other frequencies, T_oe = 100 ns + 3 * cycles	
Jitter								
RMS Period Jitter T_jitt – 1.6 2.5 ps f = 75 MHz, 2.25V to 3.63V	RMS Period Jitter	T_jitt	-	1.6	2.5	ps	f = 75 MHz, 2.25V to 3.63V	
– 1.9 3.0 ps f = 75 MHz, 1.8V			-	1.9	3.0	ps	f = 75 MHz, 1.8V	
RMS Phase Jitter (random) T_phj - 0.5 - ps f = 75 MHz, Integration bandwidth = 900 kHz to 7.5 MHz	RMS Phase Jitter (random)	T_phj	_	0.5	-	ps	f = 75 MHz, Integration bandwidth = 900 kHz to 7.5 MHz	
- 1.3 $-$ ps f = 75 MHz, Integration bandwidth = 12 kHz to 20 MHz			-	1.3	-	ps	f = 75 MHz, Integration bandwidth = 12 kHz to 20 MHz	

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Dimensions and Patterns



 SHENZHEN
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 TEL:
 0755-27876565

 18924600166
 QQ:
 857950243
 http://www.vc-tcxo.com



Dimensions and Patterns



Notes:

10. Top marking: Y denotes manufacturing origin and XXXX denotes manufacturing lot number. The value of "Y" will depend on the assembly location of the device.

11. A capacitor of value 0.1 μF or higher between Vdd and GND is required.

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